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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,719	03/22/2004	Carmen Flosbach	FA1170USNA	9219
23906	7590	04/28/2006	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			MCCLELLAND, KIMBERLY KEIL	
			ART UNIT	PAPER NUMBER
			1734	
DATE MAILED: 04/28/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,719

Applicant(s)

FLOSBACH ET AL.

Examiner

Kimberly K. McClelland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1 and 4-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 8, 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. (JP 01-202492) in view of Yamane et al. (JP 63-128987) and in view of Wagner et al. (US Patent No. 6,486,903).

Regarding claims 1, 8, and 9, Doi discloses a process for the production and use of a transfer film comprising a carrier (backing); a radiation curable transparent coating on the carrier; and an image disposed on the transparent coating. As to the transfer film and method for its manufacture, as set forth in claims 1 and 8, Doi discloses: (1) Providing a carrier (backing foil) layer (English Language Translation (hereinafter, "ELT"), pages 5 and 6); (2) Disposing on the carrier, a layer comprising a transparent radiation-curable resin (ELT, pages 6-11); (3) Disposing on the layer of transparent radiation-curable resin, a patterned image layer (ELT, pages 12-13); As to the method of using the transfer film, as set forth in claim 9, Doi discloses (ELT, pages 17 and 18): (1) Providing a substrate; (2) Disposing the surface of the transfer film opposite the carrier against the substrate; (3) Removing the carrier layer; and (4) Curing the transparent radiation-curable transfer layer. However, Doi teaches the need for a metal layer. It would have been obvious to one having ordinary skill in the art at the time the

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invention was made that an alternative to the multilayer system in Doi would be to not use a metal layer, instead use a single layer as taught by Yamane, because Yamane teaches that it is known that the transfer operation can be achieved without the use of the metal layer.

Doi discloses that the pattern layer may be provided by printing. Although they do not specifically disclose that the printing is accomplished by way of ink-jet printing, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize such a printing method in the invention of Doi motivated by the fact that Wagner, also drawn to a process for the production and use of a transfer film comprising a carrier (backing); a radiation curable coating on the carrier; and an image disposed on the transparent coating (abstract; Figures 1-6; column 4, lines 23-42), disclose that the printing of the image may be accomplished by any known method including ink-jet (column 6, lines 50-55).

Regarding claims 4, 11 and 12, Doi discloses that the solid, radiation-curable resin may comprise either epoxy group or vinyl group (methyl methacrylate) functionality (ELT, pages 6-8) and is curable by either UV or electron beam radiation (ELT, page 11).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doi in view of Yamane and Wagner, as applied to claim 1, further in view of Oshima et al. (US Patent No. 5,427,997).

Doi discloses the use of a radiation-curable protective layer but are silent as to the inclusion of an inorganic filler, as per claim 5, in an amount relative to the resin solids content.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize an inorganic filler in the radiation-curable transparent protective resin of Doi motivated by the fact that Oshima, also drawn to methods for the protection of images utilizing a transferable radiation-curable transparent protective layer (Figure 1; column 4, lines 11-15; column 4, line 45 to column 6, line 29), discloses that the inclusion of an inorganic filler at about 10 wt% of the total resin solids content (column 24, lines 1-11) enables sufficient "film cutting" while maintaining the transparency of the protective film (column 5, lines 28-46).

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi in view of Yamane and Wagner as applied to claim 1 above, further in view of Shvartsman et al. (US Patent No. 6,245,382).

Doi and Oshima, as combined above, disclose the utilization of a radiation-curable transparent coating which includes an inorganic filler at about 10 wt% of the total resin solids content. Although neither Doi nor Oshima specifically disclose the inclusion of an additional layer of radiation-curable transparent resin applied against the first, as per claim 6, and which has the same resin solids composition as that of the first radiation-curable transparent resin layer, as per claim 7, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the method resulting from the references as combined in section (3), above, with two layers of radiation-curable transparent having the same resin solids composition motivated by the fact that Shvartsman, also drawn to methods for the protection of images utilizing a transferable radiation-curable transparent protective layer, disclose the inclusion of more than one

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layer of protective coating displays a substantial improvement in protection from solvents, plasticizers, and U.V. radiation (abstract; column 21, line 66 to column 22, line 21).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doi in view of Yamane and Wagner as applied to claim 9 above, further in view of Bruns et al. (US Patent No. 4,737,322).

Although Doi et al. is silent as to the utilization of other curing methodologies in place of the radiation curing disclosed, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute thermal curing for the radiation curing of Doi et al. motivated by the fact that Bruns et al., drawn to the curing of transparent resins, teaches that these are conventional and equivalent means for curing "optical"; i.e., transparent, resins (column 5, lines 20-25).

6. Claims 1, 4, 8, 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane et al. '885 (US Patent No. 5,320,885) in view of Doi et al. (JP 01-202492) and in view of Wagner et al. (US Patent No. 6,486,903).

Yamane et al. '885 discloses a transfer sheet and transfer operation similar to that set forth in the claims, however, Yamane et al. '885 does not disclose a curable coating composition, instead Yamane utilizes a surface treating agent (12) which can be made of resins. Based on the teachings of Doi, it would have been obvious to one having ordinary skill in the art at the time the invention was made, that an alternative to the agent layer used in Yamane et al. '885 would be a curable coating composition, because they are functionally equivalent alternative expedient and Doi teaches there

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are certain advantages to the coating used therein which are not seen in Yamane et al. '885.

Yamane et al. '885 in view of Doi, discloses that the pattern layer may be provided by printing. Although they do not specifically disclose that the printing is accomplished by way of ink-jet printing, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize such a printing method in the invention of Yamane et al. '885 in view of Doi motivated by the fact that Wagner, also drawn to a process for the production and use of a transfer film comprising a carrier (backing); a radiation curable coating on the carrier; and an image disposed on the transparent coating (abstract; Figures 1-6; column 4, lines 23-42), disclose that the printing of the image may be accomplished by any known method including ink-jet (column 6, lines 50-55).

Regarding claims 4, 11 and 12, Doi discloses that the solid, radiation-curable resin may comprise either epoxy group or vinyl group (methyl methacrylate) functionality (ELT, pages 6-8) and is curable by either UV or electron beam radiation (ELT, page 11).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane et al. '885 in view of Doi and Wagner, as applied to claim 1, further in view of Oshima et al.

Yamane et al. '885 in view of Doi and Wagner discloses the use of a radiation-curable protective layer but are silent as to the inclusion of an inorganic filler, as per claim 5, in an amount relative to the resin solids content.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize an inorganic filler in the radiation-curable transparent protective resin of Yamane et al. '885 in view of Doi and Wagner motivated by the fact that Oshima, also drawn to methods for the protection of images utilizing a transferable radiation-curable transparent protective layer (Figure 1; column 4, lines 11-15; column 4, line 45 to column 6, line 29), discloses that the inclusion of an inorganic filler at about 10 wt% of the total resin solids content (column 24, lines 1-11) enables sufficient "film cutting" while maintaining the transparency of the protective film (column 5, lines 28-46).

8. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane et al. '885 in view of Doi and Wagner as applied to claim 1 above, further in view of Shvartsman et al.

Yamane et al. '885 in view of Doi, Wagner, and Oshima, as combined above, disclose the utilization of a radiation-curable transparent coating which includes an inorganic filler at about 10 wt% of the total resin solids content. Although neither Doi, Wagner, nor Oshima specifically disclose the inclusion of an additional layer of radiation-curable transparent resin applied against the first, as per claim 6, and which has the same resin solids composition as that of the first radiation-curable transparent resin layer, as per claim 7, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the method resulting from the references as combined in section (3), above, with two layers of radiation-curable transparent having the same resin solids composition motivated by the fact that Shvartsman, also drawn to methods for the protection of images utilizing a transferable radiation-curable transparent

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protective layer, disclose the inclusion of more than one layer of protective coating displays a substantial improvement in protection from solvents, plasticizers, and U.V. radiation (abstract; column 21, line 66 to column 22, line 21).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane et al. '885 in view of Doi and Wagner as applied to claim 9 above, further in view of Bruns et al.

Although Doi et al. is silent as to the utilization of other curing methodologies in place of the radiation curing disclosed, it would have been obvious to one of ordinary skill in the art at the time of invention to substitute thermal curing for the radiation curing of Doi et al. motivated by the fact that Bruns et al., drawn to the curing of transparent resins, teaches that these are conventional and equivalent means for curing "optical," i.e., transparent, resins (column 5, lines 20-25).

Response to Arguments

10. Applicant's arguments filed March 21st, 2006 have been fully considered but they are not persuasive.

11. With respect to applicant's argument in reference to the rejection of claim 1 under U.S.C. 103 Doi in view of Yamane and Wagner, examiner disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Though Doi

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discloses a metal layer, Yamane teaches the layer may be eliminated. Such an alternative would have been obvious to one of ordinary skill in the art wishing to simplify the structure of the transfer sheet of Doi.

12. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

13. As to applicant's argument that Wagner does not teach eliminating the metal film of Doi, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Yamane teaches the metal layer may be eliminated, as discussed above. Wagner teaches ink jet printing may be used to produce the image. Consequently, claim 1 remains rejected under the prior art.

14. With respect to claim 5, applicant argues there are no teachings or motivation to combine Oshima with Doi, Yamane, and Wagner. However, examiner clearly states in section (4) of the previous action that one would be motivated to enable sufficient "film cutting" while maintaining the transparency of the protective film (column 5, lines 28-46).

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Therefore, proper motivation exists that would allow one of ordinary skill in the art to obtain the invention as disclosed in claim 5.

15. As to applicant's arguments concerning claims 6 and 7, examiner disagrees.

Applicant argues Shvartsman is not related to applicants invention. However, one desiring improvement in protection from solvents, plasticizers, and U.V. radiation would look to Shvartsman to modify the transfer sheet of Doi, Yamane, and Wagner to obtain the invention as disclosed in claims 6 and 7. Furthermore, applicant argues there are no teachings or motivation to combine Shvartsman with Doi, Yamane, and Wagner.

However, examiner clearly states in section (5) of the previous action that one would be motivated by the desire to substantially improve protection from solvents, plasticizers, and U.V. radiation (abstract; column 21, line 66 to column 22, line 21). Claims 6 and 7 remain rejected under the prior art.

16. In response to applicant's arguments regarding claim 10, examiner disagrees.

Applicant argues the teachings of Bruns have "nothing to do with applicants process".

However, one skilled in the art desiring equivalent means for curing would look to Bruns to cure the coating with thermal curing means. Consequently, claim 10 remains rejected in view of the prior art.

17. With respect to applicant's argument in reference to the rejection of claim 1 under

U.S.C. 103 Yamane in view of Doi and Wagner, examiner disagrees. In response to

applicant's arguments against the references individually, one cannot show

nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA

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1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Though Yamane discloses a non-curable layer, Doi teaches the layer may be a curable resin. Such an alternative would have been obvious to one of ordinary skill in the art wishing to simplify the structure of the transfer sheet of Doi. Also, applicant argues Yamane only discloses a two-layered resin. However, applicant is directed to Figures 3 and 4 of Yamane, which disclose another embodiment of a single-layered sheet.

18. Furthermore, applicant argues no motivation exists to combine Doi and Yamane. However, the layers of Doi and Yamane are functionally equivalent alternative expedient and Doi teaches there are certain advantages to the coating used therein which are not seen in Yamane.

19. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the entire coating layer covering the image remains on the substrate) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

20. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

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not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

21. As to applicant's argument that Wagner does not teach eliminating the metal film of Doi, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Yamane teaches the metal layer may be eliminated, as discussed above. Wagner teaches ink jet printing may be used to produce the image. Consequently, claim 1 remains rejected under the prior art.

22. With respect to claim 5, applicant argues there are no teachings or motivation to combine Oshima with Yamane, Doi, and Wagner. However, examiner clearly states in section (4) of the previous action that one would be motivated to enable sufficient "film cutting" while maintaining the transparency of the protective film (column 5, lines 28-46). Therefore, proper motivation exists that would allow one of ordinary skill in the art to obtain the invention as disclosed in claim 5.

23. As to applicant's arguments concerning claims 6 and 7, examiner disagrees. Applicant argues Shvartsman is not related to applicant's invention. However, one desiring improvement in protection from solvents, plasticizers, and U.V. radiation would look to Shvartsman to modify the transfer sheet of Yamane, Doi, and Wagner to obtain the invention as disclosed in claims 6 and 7. Furthermore, applicant argues there are no teachings or motivation to combine Shvartsman with Yamane, Doi, and Wagner.

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However, examiner clearly states in section (5) of the previous action that one would be motivated by the desire to substantially improve protection from solvents, plasticizers, and U.V. radiation (abstract; column 21, line 66 to column 22, line 21). Claims 6 and 7 remain rejected under the prior art.

24. In response to applicant's arguments regarding claim 10, examiner disagrees. Applicant argues the teachings of Bruns have "nothing to do with applicants process". However, one skilled in the art desiring equivalent means for curing would look to Bruns to cure the coating with thermal curing means. Consequently, claim 10 remains rejected in view of the prior art.

25. Accordingly, claims 1 and 4-12 remain rejected under the prior art.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

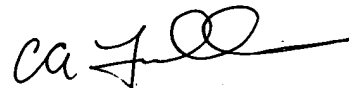
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly K. McClelland whose telephone number is (571) 272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris A. Fiorilla can be reached on (571)272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KKM



CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER

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